

CLAIMS

2

I (WE) CLAIM:

4 1. A method for communication in a communication system, the
communication system having a first cell, the first cell having a first sector and a
6 second sector, the method comprising:

transmitting signals at a first power level to the first sector during a first
8 time slot; and

10 transmitting signals at a second power level to the second sector during
the first time slot.

2 2. The method of claim 1, wherein the second power level is less than the
2 first power level.

3. The method of claim 1, further comprising:
2 transmitting signals at the second power level to the first sector during a
second time slot; and
4 transmitting signals at the first power level to the second sector during
the second time slot.

4. The method of claim 3, further comprising:
2 transmitting a reverse power control signal to the first sector at the first
power level during the second time slot.

5. A method for communication in a communication system, the
2 communication system having a first cell, the first cell having a first sector and a
second sector, the method comprising:

4 determining a time-division power assignment for the first sector and the
second sector; and
6 generating signals to the first sector and the second sector according to
the power assignment.

SEARCHED
INDEXED
SERIALIZED
FILED
APR 20 2004
U.S. PATENT AND TRADEMARK OFFICE

6. The method of claim 5, wherein the cellular communication system is a
2 Code Division Multiple Access (CDMA) system.
7. The method of claim 6, further comprising:
2 adjusting reverse power control signals according to the power
assignment.
8. The method of claim 6, further comprising:
2 adjusting a pilot signal according to the power assignment.
9. A mobile unit, comprising:
2 an antenna; and
an equalizer coupled to the antenna, the equalizer comprising:
4 a plurality of taps, each having first and second associated
coefficients, the first associated coefficient corresponding
6 to a first time slot, the second associated coefficient
corresponding to a second time slot, the plurality of taps
8 being operative to scale a first set of input symbols during
the first time slot by the first associated coefficients, the
10 plurality of taps being further operative to scale a second
set of input symbols during the second time slot by the
12 second associated coefficients, the plurality of taps being
further operative to generate tap outputs;
14 a summing node coupled to the plurality of taps, the summing
node being operative to sum the tap outputs; and
16 a memory storage unit adapted to store coefficient adjustment
information, wherein the associated coefficients are
18 adjusted according to the coefficient adjustment
information.
10. The mobile unit of claim 9, wherein the summing node is further
2 operative to generate a C/I estimate for each time slot.

11. The mobile unit of claim 10, further comprising:
2 a decision node operative to generate a data rate decision for each
time slot based on the C/I estimate.
12. The mobile unit of claim 11, wherein the decision node comprises a look-
2 up table correlating C/I estimates and data rates.
13. An equalizer, comprising:
2 a plurality of taps, the taps being operative to scale input symbols with a
4 first set of associated coefficients during a first time slot and with
a second set of associated coefficients during a second time slot;
and
6 a coefficient adjustment node coupled to the plurality of taps, the
coefficient adjustment node being operative to apply the first set
8 of associated coefficients during the first time slot and to apply the
second set of associated coefficients during the second time slot.
14. The equalizer of claim 13, wherein the equalizer is an adaptive equalizer.
15. The equalizer of claim 14, wherein the equalizer is operative to generate
2 a C/I estimate, the equalizer having $(2L+1)$ coefficients "C," the C/I estimate
for a time slot "i" being given as:
4
- $$y_i(n) = \sum_{\ell=-L}^L C_{i,\ell}(n) \cdot x_i(n - \ell T),$$
- 6 wherein "n" is a sample set index, each sample set comprising a plurality of
input symbols, wherein "x" is an input symbol within a sample set, and
wherein "T" is the period of the input symbol, x.
16. The equalizer of claim 15, further comprising:
2 a data rate decision node operative to receive the C/I estimate and
determine a corresponding date rate.

17. A mobile unit, comprising:
- 2 an equalizer adapted to calculate a first C/I estimate for a first
4 transmitted signal power and a second C/I estimate for a second
6 transmitted signal power; and
8 a data rate decision node operative to receive C/I estimates from the
equalizer and generate a first data rate decision for the first C/I
estimate and a second data rate decision for the second C/I
estimate.
18. The mobile unit as in claim 17, wherein the first transmitted signal power
2 is received during a first time slot, and the second transmitted signal power
during a second time slot.